

LOS ESTEROS CRITICAL ENERGY FACILITY, LLC

800 Thomas Foon Chew Way
San Jose, CA 95134

June 8, 2022

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports
Via Email: compliance@baaqmd.gov

TV Tracking #: 468

1. RECEIVED IN ENFORCEMENT: 06/09/2022

Re: Los Esteros Critical Energy Facility #B3289
Title V CEMS Semi-Annual Monitoring Report
Reporting Period: December 1, 2021 – May 31, 2022

To Whom It May Concern:

Enclosed is the Title V CEMS Semi-Annual Monitoring Report for the Los Esteros Critical Energy Facility (“LECEF”) for the reporting period from December 1, 2021 – May 31, 2022.

LECEF is currently in compliance with the District CEMS regulations and maintained compliance with the monitoring requirements listed in the Title V permit, during the reporting period for CT-1, CT-2, CT-3, and CT-4.

By signing this report I am certifying that based on information and belief formed after reasonable inquiry, the statements and information in the attached report are true, accurate, and complete.

If you have any questions or require additional information, do not hesitate to contact Rosemary Silva, EHS Specialist III, at (408) 361-4954.

Sincerely,



Kevin Karwick
General Manager and
Responsible Official/Designated Representative
Los Esteros Critical Energy Facility, LLC

Enclosures

cc: John Heiser
Region 9

CEC AQ-34
EPA

**Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
December 1, 2020 – May 31, 2021**

**Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, & S-4 COMBUSTION GAS TURBINES WITH WATER INJECTION,
S-7, S-8, S-9 & S-10 HEAT RECOVERY STEAM GENERATORS**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
NOx	BAAQMD 9-9-301.2	N		9 ppmv @ 15% O ₂ , dry Or 0.43 lbs/MW-hr	BAAQMD 9-9-501 and BAAQMD condition #23868, part 25c	C	CEM	X	
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O ₂ , dry	BAAQMD 9-9-501 and BAAQMD condition #23868, part 25c	C	CEM	X	
NOx	NSPS Subpart KKKK 40 CFR 60.4320(a) and (h)	Y		25 ppmv @ 15% O ₂ , dry 30 day rolling average	NSPS 40 CFR 60.4335(b)(1)	C	CEM	X	
NOx	None	Y		None	40 CFR 75.10	C	CEM	X	
NOx (as NO ₂)	BAAQMD condition #23688, part 10	Y		1464 lb/day and 102 lb/hr for all turbines and HRSGs combined during commissioning, including startup and shutdown of turbine without catalyst	BAAQMD condition #23688, parts 7 and 25c	C	CEM	NA	
NOx (as NO ₂)	BAAQMD condition #23688, part 10	Y		1464 lb/day and 61 lb/hr for all turbines and HRSGs combined during commissioning, including startup and shutdown of turbine with catalyst	BAAQMD condition #23688, parts 7 and 25c	C	CEM	NA	

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								Yes	No
NOx	BAAQMD condition #23688, part 19a	Y		2 ppmv @ 15% O ₂ , dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19a and 25c	C	CEM	X	
NOx	BAAQMD condition #23688, part 19a	Y		2 ppmv @ 15% O ₂ , dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26a	P/A	Source test	X	
NOx (as NO ₂)	BAAQMD condition #23688, part 22	Y		175.6 lb/day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
NOx (as NO ₂)	BAAQMD condition #23688-part 22	Y		702.4 lb/day (as NO ₂) for all turbines and HRSGs combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
NOx (as NO ₂)	BAAQMD condition #23688, part 22	Y		94.1 tons per year (as NO ₂) for all turbines and HRSGs combined, including startup or shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
CO	BAAQMD condition #23688, part 10	Y		1056 lb/day and 88 lb/hr for all turbines combined during commissioning, including startup and shutdown of turbine without catalyst	BAAQMD condition #23688, parts 7 and 25c	C	CEM	NA	
CO	BAAQMD condition #23688, part 10	Y		984 lb/day and 41 lb/hr for all turbines and HRSGs combined during commissioning, including startup and shutdown of turbine with catalyst	BAAQMD condition #23688, parts 7 and 25c	C	CEM	NA	
CO	BAAQMD condition #23688, part 19c	Y		2 ppmv @ 15% O ₂ , dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	C	CEM	X	

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								Yes	No
CO	BAAQMD condition #23688, part 19c	Y		2 ppmv @ 15% O ₂ , dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26c	P/A	Source test	X	
CO	BAAQMD condition #23688, part 19c	Y		2.85 lb CO/hr for each turbine, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	C	CEM	X	
CO	BAAQMD condition #23688, part 19c	Y		2.85 lb CO/hr for each turbine, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	P/A	Source Test	X	
CO	BAAQMD condition #23688, part 22	Y		97 lb/day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
CO	BAAQMD condition #23688, part 22	Y		388 lb/day for all turbines and HRSG combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
CO	BAAQMD condition #23688, part 22	Y		53.4 tons per year for all turbines and HRSGs combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	
CO ₂		Y		None	40 CFR 75.10	C	CEM (CO ₂) or CEM (O ₂) or fuel flow monitor	X	
SO ₂	BAAQMD 9-1-301	Y		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		X	
SO ₂	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD Condition 23688, Part 26f	P/A	Source test	X	

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								Yes	No
SO ₂	NSPS Subpart KKKK 40 CFR 60.4330 (a)(2)	Y		0.060lb SO ₂ /MMbtu	NSPS 40 CFR 60.4365(a)	N	None	X	
SO ₂	None	Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations	X	
SO ₂	BAAQMD condition #23688, part 22	Y		6.43 tons/calendar year for all turbines and HRSGs combined including startup and shutdown of turbines	BAAQMD Condition 23688, Part 26f	P/A	Source Test	X	
S in Fuel	BAAQMD condition #23688, part 24b	Y		1.0 gr S/100 scf natural gas	BAAQMD condition #23688, part 24b	P/M	Fuel analysis or vendor data	X	
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	None	X	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	None	X	
Opacity	BAAQMD condition #23688, part 18	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour or equivalent 20% opacity		N	None	X	
FP	BAAQMD 6-1-310	Y		0.15 grain/dscf		N	None	X	
FP	SIP 6-310	Y		0.15 grain/dscf		N	None	X	
PM ₁₀	BAAQMD condition #23688, part 22	Y		38.5 tons/year for all turbines and HRSGS combined including startup and shutdown of turbines	BAAQMD condition #23688 part 26e	P/A	Source test, records & calculation	X	

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								Yes	No
POC	BAAQMD condition #23688 part 10	Y		288 lb/day for all turbines and HRSG combined during commissioning and including startup and shutdown of turbines without catalyst	BAAQMD condition #23688 part 26d	P/A	Source Test, records & calculation	NA	
POC	BAAQMD condition #23688 part 10	Y		114 lb/day for all turbines and HRSG combined during commissioning and including startup and shutdown of turbines with catalyst	BAAQMD condition #23688 part 26d	P/A	Source Test, records & calculation	NA	
POC	BAAQMD condition #23688, part 19d	Y		1 ppmv @ 15% O ₂ , dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26d	P/A	Source Test	X	
POC	BAAQMD condition #23688, part 22	Y		20.2 lb/day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 26d	P/A	Source Test	X	
POC	BAAQMD condition #23688, part 22	Y		80.8 lb/day for all turbines and HRSG combined, including startup and shutdown	BAAQMD condition #23688, part 26d	P/A	Source Test	X	
POC	BAAQMD condition #23688 part 22	Y		12.3 tons/year for all turbines and HRSGs combined including startup and shutdown.	BAAQMD condition #23688, part 26d	P/A	Source Test	X	
NH ₃	BAAQMD condition #23688, part 19b	N		5 ppmv @ 15% O ₂ , dry, averaged over 3-hrs except during turbine startup or shutdown	BAAQMD condition #23688, parts 19b and 26b	C	NH ₃ flow meter	X	
NH ₃	BAAQMD condition #23688, part 19b	N		5 ppmv @ 15% O ₂ , dry, averaged over 3-hrs except during turbine startup or shutdown	BAAQMD condition #23688, part 26b	P/A	Source Test	X	

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								Yes	No
NH ₃	BAAQMD condition #23688, part 22	Y		104 lb/day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25b	P/A	Ammonia flow meter	X	
NH ₃	BAAQMD condition #23688, part 22	Y		416 lb/day for all turbines and HRSGs combined, including startup and shutdown	BAAQMD condition #23688, part 25b	P/A	Ammonia flow meter	X	
NH ₃	BAAQMD condition #23688 part 22	Y		56.9 tons/year for all turbines and HRSGs combined including startup and shutdown.	BAAQMD condition #23688, part 26b	P/A	Source test	X	
Formaldehyde	BAAQMD condition #23688 part 43	N		6480 lbs/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	X	
Acetaldehyde	BAAQMD condition #23688 part 43	N		3000 lbs/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	X	
Specific PAHs	BAAQMD condition #23688 part 43	N		3.2 lbs/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	X	
Acrolein	BAAQMD condition #23688 part 43	N		65.3 lbs/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	X	
Sulfuric Acid Mist	BAAQMD condition #23688 part 43	Y		7 tons/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 27	P/SA (May be lowered after 2 tests based on variability)	Source Test	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr (HHV), for each turbine	BAAQMD condition #23688, part 25d	C	Fuel meter, firing monitor, calculations	X	

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								Yes	No
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr (HHV), for each turbine	BAAQMD condition #23688, part 25d	P/M	Fuel composition analysis	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr (HHV), for each turbine	BAAQMD condition #23688, part 25d	P/A	Source test	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/M	Fuel composition Analysis	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/A	Source Test	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		12,000 MM BTU/day (HHV) for each turbine	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		12,000 MM BTU/day (HHV) for each turbine	BAAQMD condition #23688, part 25d	P/Q	Fuel composition Analysis	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		15,366 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		15,366 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/Q	Fuel composition Analysis	X	

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								Yes	No
Heat input limit	BAAQMD condition #23688, part 24	Y		18,215,000 MM BTU/yr (HHV) for all turbines w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		16,560,000MM BTU/yr. (HHV) for all turbines w/ Duct Burner	BAAQMD condition #23688, part 25d	P/Q	Fuel composition analysis	X	
Unabated firing	BAAQMD condition #23688, part 8	Y		250 hours during commissioning	BAAQMD condition #23688, part 8	P/H	Records	NA	
MW	N/A			None	BAAQMD condition #23688, part 26h	P/A	Source test	X	
Gas temperature	N/A			None	BAAQMD condition #23688, part 26j	P/A	Source test	X	
Stack gas flow	N/A			None	BAAQMD condition #23688, part 26i	P/A	Source test	X	
NH ₃ injection rate	N/A			None	BAAQMD condition #23688, part 26k	P/A	Source test	X	
Water Injection Rate	N/A			None	BAAQMD condition #23688, part 26l	P/A	Source test	X	

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**Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5 FIRE PUMP DIESEL ENGINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		X	
Opacity	SIP Regulation 6-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		X	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf Particulate Weight Limitation		N		X	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		X	
SO ₂	BAAQMD 9-1-301	N		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		X	
SO ₂	BAAQMD 9-1-304	Y		0.5% sulfur in fuel by weight	BAAQMD Condition #23688, part 39	P/E	Fuel certification	X	
Hours of operation	BAAQMD Regulation 9-8-330.1	N		Emergency use for an unlimited number of hours	BAAQMD Regulation 9-8-530	P	Records	X	
Hours of operation	40 CFR Part 63, Subpart ZZZZ, 63.6640(f)(1)(ii)	Y		Maintenance checks and readiness testing less than 100 hr/yr	40 CFR Part 63, Subpart ZZZZ, 63.6655(e)	P	Records	X	
Hours of operation	BAAQMD Condition #23688, part 39	N		Reliability related activities less 50 hr/yr	BAAQMD Condition #23688, parts 41 & 42	C P/E	Records	X	

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**Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-11 SIX CELL COOLING TOWER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	Y		>Ringelmann No.1 for no more than 3 minutes in any hour		N		X	
Opacity	SIP 6-301	Y		>Ringelmann No.1 for no more than 3 minutes in any hour		N		X	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf		N		X	
FP	SIP 6-310	Y		0.15 gr/dscf		N		X	
Drift Rate	BAAQMD Condition #23688, part 46	N		0.0005%	BAAQMD Condition #23688, part 47	P Initial (5 th and 15 th Year if required by CPM)	Source Test	X	
TDS	BAAQMD condition #23688, part 46	N		<6,000 ppmw	BAAQMD condition #23688, part 46	P/D	TDS Test	X	